

Friday, July 29, 2011

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

RE: In the Matter of LightSquared Subsidiary LLC Request for Modification of its Authority for an Ancillary Terrestrial Component; SAT-MOD-2010118-00239

Dear Secretary Dortch,

High precision GPS has become an essential technology in several critical aspects of production agriculture in the United States. It is the position of the undersigned organizations that there should be no actions taken by the Federal Communications Commission that would jeopardize the availability or performance of GPS. Together the American Society of Agricultural and Biological Engineers (ASABE) and the American Society of Agronomy (ASA) represent over 17,000 engineers, scientists, researchers, and practicing professionals. Therefore, we appreciate the opportunity to comment on the conditional waiver granted to LightSquared for the creation of its 4G wireless broadband network. While expanding access to broadband internet is an admirable goal, we fear that interference by the LightSquared network on GPS will reduce the performance of the high-precision GPS systems now essential to agriculture.

High-precision GPS integrated with other innovative technologies has advanced the productivity and environmental sustainability of agricultural production systems, and it is crucial to the evolution of agricultural production systems required to meet the food, feed, fiber and fuel needs of a growing world population. The following examples are only a few of the ways high precision GPS optimizes the economic and environmental viability of agriculture.

- A farmer whose tractor is equipped with a high-precision GPS system can apply different rates of fertilizer across his or her field. This ensures that crops receive an optimal dosage, leading to higher yields and profit. Just as importantly though, precision fertilizer optimization can reduce over-fertilization, which is expensive and can lead to nutrient runoff or leaching into streams, rivers, and groundwater.
- Similarly, applicators of crop protection chemicals have been able to more precisely target their applications, reducing their environmental impact while increasing their efficacy. High-precision GPS systems have allowed the development of machine control systems that eliminate double application of products when an applicator crosses an area where application has already occurred.
- Auto-steer for agricultural equipment, which relies on high-precision GPS, allows for increased farmer safety and fewer passes through a field. This results in significant savings in fuel and reduces soil compaction, a serious impediment to

plant growth and another promoter of excessive runoff that can pollute waterways.

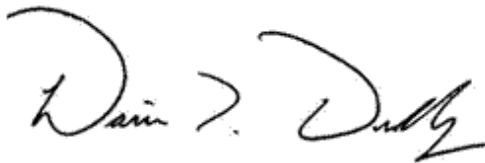
- Yield monitoring and mapping offers a glimpse into the year-to-year performance of each portion of a field. This information is being used to address persistent poor performance and to compare alternative agronomic practices.

Developing and operating precision agricultural systems requires contributions from a variety of professional disciplines. Researchers at universities and in extension services run experiments to scientifically validate newly developed techniques and to broaden the scope of current applications. Engineers, geographers, computer programmers and other IT specialists, work together to develop the equipment and software used in the field. Agronomists and crop advisers conduct the grid sampling and data interpretation necessary for farmers to make informed decisions about land and input use. The diversity of high-skilled jobs created in the sector contributes to sustainable economic growth. Any degradation of the GPS signal reduces the utility of all these systems, leading to a decrease in innovation and investment in the field. Loss of high-precision GPS will not be just an inconvenience, it will be a serious setback to the industry and to our environment that will require years for recovery.

The world's population is projected to reach 9 billion people by 2050, requiring a 70% increase in food production. This immense task must be done using less water and little more land than is currently in cultivation. Widespread efficiency gains, like those that precision agriculture make possible, will be crucial to meeting the increased demand for food, feed, fuel, and fiber in the twenty-first century.

We implore on you not to grant this request by LightSquared Subsidiary LLC for modification of its authority, which will jeopardize high-precision GPS technology that is so crucial to the agricultural and many other industries. We appreciate your consideration of our concerns.

Sincerely,



Darrin Drollinger, Executive Director
American Society of Agricultural
and Biological Engineers (ASABE)



Ellen Bergfeld, CEO
American Society of Agronomy (ASA)